AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of causing an improvement in function of the central nervous system of a subject having impaired central nervous system function resulting from a stroke, comprising

(a) preparing a sample of human ~~an aliquot of~~ CD34+/-, Lin- cells derived from umbilical cord blood, wherein said CD34+/-, Lin- cells in said sample are enriched relative to CD34+/-, Lin- cells present in a mononuclear cell fraction of umbilical cord blood; and

(b) administering to the subject the sample ~~aliquot~~ of cells, in an amount sufficient to cause said improvement, wherein said sample ~~aliquot~~ of cells is administered directly to the site of said stroke.

2. (Currently Amended) A method of causing an improvement in a function of the central nervous system of a subject having impaired central nervous system function resulting from a stroke, comprising

(a) preparing a sample of human ~~an aliquot of~~ CD34+/-, Lin- cells derived from blood, wherein said CD34+/-, Lin- cells in said sample are enriched relative to CD34+/-, Lin- cells present in a mononuclear cell fraction of blood; and

(b) administering to the subject the sample ~~aliquot~~ of cells, in an amount sufficient to cause said improvement, wherein said sample ~~aliquot~~ of cells is administered

directly to the site of said stroke.

3. (Currently Amended) The method of claim 1 or 2, wherein said administering further comprises administering a growth factor to said subject.

4. (Cancelled)

5. (Currently Amended) The method of claim 2 ~~or 3~~ wherein the cells are derived from peripheral blood.

6. (Currently Amended) The method of claim 1~~, 2 or 3~~ further comprising obtaining the sample ~~aliquot~~ of cells by separating the CD34+/-, Lin- cells ~~a desired cell population~~ from the cord blood.

7. (Original) The method of claim 3 wherein the growth factor is selected from the group consisting of oncostatin M and growth factors from the following families: FGF, neurotrophin, IGF, CNTF, EGF, TGF-beta, LIF, interleukins, PDGF and VEGF.

8. (Currently Amended) The method of claim 1 or 2 ~~1, 2 or 3~~ further comprising obtaining a sample of cells and purifying the sample to obtain the aliquot.

9. (Currently Amended) The method of claim 1 or 2 ~~1, 2 or 3~~ further comprising

~~obtaining a sample of cells and~~ expanding ~~at least a selected population of cells in the sample~~ the CD34+/-, Lin- cells ~~*ex vivo* to obtain the aliquot~~.

10. (Currently Amended) The method of claim 1 or 2 ~~1, 2 or 3~~ wherein said sample ~~aliquot~~ of cells comprises allogeneic cells.

11. (Currently Amended) The method of claim 1 or 2 ~~1, 2 or 3~~ wherein said sample ~~aliquot~~ of cells comprises autologous cells.

12. (Withdrawn) The method of claim 1, 2, or 3 wherein the improvement results in recovery from a central nervous system trauma.

13. (Currently Amended) The method of claim 1 or 2 ~~1, 2 or 3~~ wherein the improvement results in repair of central nervous system damage caused by said stroke.

14. (Cancelled)

15. (Currently Amended) The method of claim 1 or 2 ~~1, 2 or 3~~ wherein the improvement results in regeneration of central nervous system tissue damaged by said stroke.

16-18 (Cancelled)

19. (Currently Amended) The method of claim 1 or 2 ~~1, 2 or 3~~ wherein the improvement results from a genetic element contained in the administered cells.

20. (Original) The method of claim 19 wherein the genetic element is endogenous to the administered cells.

21. (Original) The method of claim 19 wherein the genetic element has been exogenously added to the administered cells.

22. (Withdrawn) The method of claim 1, 2 or 3 wherein the improvement comprises head trauma recovery.

23. (Withdrawn) The method of claim 1, 2 or 3 wherein the improvement comprises head trauma repair.

24. (Withdrawn) The method of claim 1, 2 or 3 wherein the improvement results from tissue regeneration after head trauma.

25. (Currently Amended) The method of claim 1 or 2 wherein the cells are administered intracerebrally ~~intercerebrally~~, intracisternally, intracerebroventricularly, or intraparenchymally.

26. (Cancelled)

27. (Currently Amended) The method of claim 1 or 2 wherein the cells are characterized as: $CD2^-$, $CD3^-$, $CD14^-$, $CD16^-$, $CD19^-$, $CD24^-$, $CD56^-$, $CD66b^-$, glycophorin A^-, flk-1^+, $CD45^+$, $CXCR4^+$, or MDR^+.

28. (Cancelled)

29. (Currently Amended) The method of claim 1 or 2 ~~1, 2 or 3~~ further comprising administering to the subject a cell differentiation factor.

30. (Currently Amended) The method of claim 1 or 2 ~~1, 2 or 3~~ further comprising administering to the subject a neural guidance molecule.

31. (Currently Amended) The method of claim 3 wherein the growth factor is administered intracerebrally ~~intercerebrally~~, intracisternally, intracerebroventricularly, or intraparenchymally.

32. (Currently Amended) The method of claim 3 wherein the growth factor is administered with the sample ~~aliquot~~ of cells.

33. (Currently Amended) The method of claim 3 wherein the growth factor is administered separately from the sample ~~aliquot~~ of cells.

34. (Cancelled)

35. (Previously Presented) The method of claim 13 wherein the damage caused by said stroke is due to lack of oxygen to the brain.

36. (Cancelled)

37. (Currently Amended) A method of causing an improvement in central nervous system function of a patient having impaired central nervous system function resulting from a stroke comprising:

preparing a sample of human CD34+/-, Lin- cells, wherein said CD34+/-, Lin- cells in said sample are enriched relative to CD34+/-, Lin- cells present in a mononuclear cell fraction of umbilical cord blood, ~~obtaining an aliquot containing a predetermined target population of cells~~ by

(a) introducing a starting sample of cord blood cells into a growth medium;

(b) causing said cord blood cells to divide;

(c) concurrently with, intermittently during, or following step (b),

contacting the cord blood cells in the growth medium with a selection element comprising a plurality ~~plurability~~ of selective binding molecules with affinity for human CD34+/-, Lin- ~~cord blood~~ cells or non-CD34+/-, Lin- human ~~a first population of non-target~~ cells so as to separate human CD34+/-, Lin- cells ~~select cells of the target population~~ from other cells in the growth

medium; and

(d) administering the sample ~~aliquot~~ containing human CD34+/-, Lin- to the patient in an amount sufficient to cause said improvement.

38-40 (Cancelled)

41. (Original) The method of claim 37 wherein said expansion is clonogenic.

42. (Withdrawn) A method of causing an improvement in function of the central nervous system of a subject having impaired central nervous system function, comprising administering to the subject an aliquot of cells derived from umbilical cord blood, wherein the improvement results from treatment of a disease selected from the group consisting of Parkinson's Disease, Alzheimer's disease, Huntington's Disease, MS, Tay-Sachs, and cerebral palsy.

43. (Withdrawn) A method of causing an improvement in function of the central nervous system of a subject having impaired central nervous system function, comprising administering to the subject an aliquot of cells derived from blood, the aliquot containing stem cells, wherein the improvement results from treatment of a disease selected from the group consisting of Parkinson's Disease, Alzheimer's disease, Huntington's Disease, MS, Tay-Sachs, and cerebral palsy.

44. (Currently Amended) A method of causing an improvement in function of the central nervous system of a subject having impaired central nervous system function resulting from a stroke, said method comprising

(a) preparing a sample ~~an aliquot~~ of cells containing a predetermined target population by providing a starting sample of cells derived from umbilical cord blood, and causing cells of the target population in the starting sample to divide; and

(b) administering to the subject the sample ~~aliquot~~ of cells, in an amount sufficient to cause said improvement, wherein said cells are administered directly to the site of said stroke and comprise human CD34+/-, Lin- cells, and wherein said CD34+/-, Lin- cells in said sample are enriched relative to CD34+/-, Lin- cells present in a mononuclear cell fraction of umbilical cord blood.

45-47 (Cancelled)